

ABSTRACT

Metal loaded carbon filaments and a process for making the same are provided. This process includes forming metal on carbon filaments produced from at least one carbon-containing compound, e.g., an alkane or an alkene. The metal may be formed on surfaces of previously formed carbon filaments by, for example, electroplating, impregnation, or chemical vapor deposition. Alternatively, the carbon filaments and the metal may be formed concurrently, resulting in the metal being incorporated in the carbon filaments. An article of manufacture is also provided that includes a carbon filament having metal disposed thereon. The article of manufacture may be, for example, a high surface area catalyst, an electronic element, and a composite material having enhanced electrical properties.